WHAT IS CLAIMED IS:

[c1]   1.   A method for communicating a message over a radio frequency (RF) communications network having a plurality of RF channels, the method comprising the steps of:

partitioning the message into a plurality of blocks having a predetermined order;

converting the plurality of blocks into a plurality of packets;

selecting a subset of the plurality of packets;

transmitting the selected subset of the plurality of packets over at least one of the plurality of RF channels of the RF communications network;

receiving the selected subset of the plurality of packets transmitted over the at least one of the plurality of RF channels;

estimating a quality of the at least one of the plurality of RF channels from at least the received selected subset of the plurality of packets; and

constructing an estimate of the message using at least the received selected subset of the plurality of packets and the estimated quality of the at least one of the plurality of RF channels.

[c2]   2.   The method of Claim 1 wherein each of the plurality of packets comprises at least a block number field, a block field and an error control field.

[c3]   3.   The method of Claim 2 wherein the error control field comprises a cyclic redundancy code

[c4]   4.   The method of Claim 2 wherein the error control field comprises forward error correction coding information.

[c5]   5. The method of Claim 1 wherein the step of selecting the subset of the plurality of packets comprises selecting the subset of the plurality of packets having a predetermined probability of error-free reception.

[c6]   6. The method of Claim 1 wherein the step of transmitting the selected subset of the plurality of packets uses orthogonal frequency division multiplexing (OFDM) communication techniques.

[c7]   7. The method of Claim 1 wherein the step of transmitting the selected subset of the plurality of packets transmits the selected subset of the plurality of packets using communication techniques selected from the groups consisting of Bluetooth communications techniques and IEEE standard 802.11 communications techniques.

[c8]   8. The method of Claim 1 wherein the step of transmitting further comprises the steps of:

detecting a presence of jamming pulses in at least one of the plurality of RF channels;

determining characteristics of the jamming pulses in the at least one of the plurality of RF channels wherein the determined characteristics define at least interstices between the jamming pulses; and

transmitting the selected subset of the plurality of packets over the at least one of the plurality of RF channels wherein the selected subset of the plurality of packets is transmitted within the interstices of the jamming pulse determined from the step of determining characteristics of the jamming pulses.

[c9]   9. The method of Claim 8 wherein the characteristics comprise at least jamming pulse duration and jamming pulse repetition time.

[c10]   10. The method of Claim 1 wherein the method further comprises processing the received selected subset of the plurality of packets to yield the plurality of blocks of the message.

[c11]   11. The method of Claim 10 wherein the step of constructing an estimate of the message comprises the step of ordering the plurality of blocks of the message to yield the plurality of blocks having the predetermined order.

[c12]   12. The method of Claim 1 wherein the step of transmitting the selected subset of the plurality of packets uses Bluetooth communications techniques.

[c13]   13. The method of Claim 1 wherein the step of transmitting the selected subset of the plurality of packets uses IEEE standard 802.11 communication techniques.

[c14]   14. A method transmitting a message over at least one of a plurality of radio frequency (RF) channels of an RF communications network, the method comprising the steps of:

detecting a presence of jamming pulses in the at least one of the plurality of RF channels;

determining characteristics of the jamming pulses in the at least one of the plurality of RF channels wherein the determined characteristics define at least interstices between the jamming pulses; and

transmitting the message over the at least one of the plurality of RF channels wherein the message is transmitted within the interstices of the jamming pulse determined from the step of determining characteristics of the jamming pulses.

[c15]   15. The method of Claim 15 further comprises the steps of:

partitioning the message into a plurality of blocks having a predetermined order;

converting the plurality of blocks into a plurality of packets;

selecting a subset of the plurality of packets; and

wherein the step of transmitting further comprises transmitting the selected subset of the plurality of packets over the at least one of the plurality of RF channels.

[c16]   16. The method of Claim 15 further comprising the steps of:

receiving the selected subset of the plurality of packets transmitted over the at least one of the plurality of RF channels;

estimating a quality of the at least one of the plurality of RF channels from at least received selected subset of the plurality of packets; and

constructing an estimate of the message using at least the received selected subset of the plurality of packets and the estimated quality of the at least one of the plurality of RF channels.

[c17]   17. The method of Claim 16 wherein the method further comprises processing the received selected subset of the plurality of packets to yield the plurality of blocks of the message.

[c18]   18. The method of Claim 17 wherein the step of constructing an estimate of the message comprises the step of ordering the plurality of blocks of the message to yield the plurality of blocks having the predetermined order.

[c19]   19. The method of Claim 15 wherein the step of selecting the subset of the plurality of packets comprises selecting the subset of the plurality of packets having a predetermined probability of error-free reception.

[c20]   20. The method of Claim 14 wherein the characteristics comprise at least jamming pulse duration and jamming pulse repetition time.

[c21]   21. The method of Claim 14 wherein the step of transmitting the selected subset of the plurality of packets uses Bluetooth communications techniques.

[c22]   22. The method of Claim 14 wherein the step of transmitting the selected subset of the plurality of packets uses IEEE standard 802.11 communication techniques.